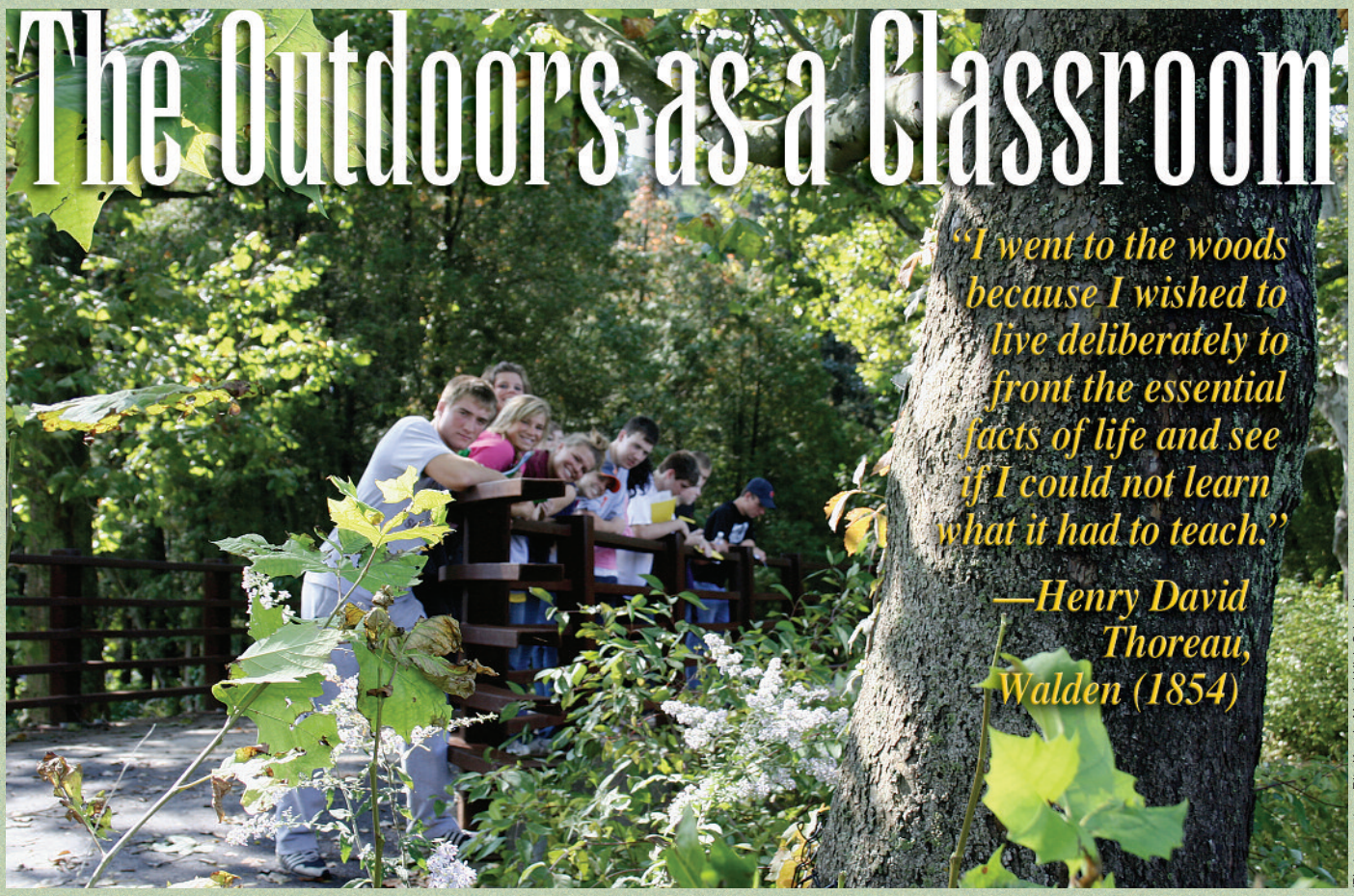
A unique grant program helps Illinois schools get students into the outdoors.

The Outdoors as a Classroom



(Photos courtesy Rita Keogh, Montini High School.)

Story By Kathy Andrews

Rather than keeping students at their desks, listening to lectures, reading textbooks and watching educational videotapes, some teachers prefer to open the doors to knowledge by taking students outdoors.

Valerie Keener, head of the Department of Natural Resources' Division of Education, administers the Illinois Biodiversity Field Trip Grant program. Since 2001, the program has provided financial incentives to aid teachers in planning natural resource-related field trips.

"Too often field trips fall by the wayside due to lack of funds for a school bus or to pay for a substitute teacher," Keener explained. "Successful grant applicants receive up to $500 that allows them to expose students to real-life, outdoor learning."

As an outdoors advocate, David Grohne, principle owner and chairman of the board of Independence Tube Corporation, explained why his company has helped underwrite the program: "I have watched the world become more urbanized, and witnessed a decline in understanding of the natural world. I believe the better our youth understand nature the more rational their future decisions will be with regards to managing our resources and keeping things in balance."

Does a few hundred dollars really make a difference? Peter Nolan, president of Daniel F. and Ada L. Rice Foundation and the originating grant sponsor, knows so.

The Illinois Biodiversity Field Trip Grant program allows educators the opportunity to take lessons outdoors.

"Each year we receive countless letters from students and teachers reporting on their field trip," Nolan said. "It is evident that this program truly has a meaningful impact on everyone involved, and we feel it provides an incredible bang for our investment."

A Walk on the Walden Side

The words of Henry David Thoreau are prominent in the readings assigned to juniors at Montini High School in Lombard.

Thoreau's observations of nature were central to the unit and field trip American literature teacher Rita Keogh organized for 180 students. After reading many of Thoreau's passages describing a day in the woods or sitting at the side of the pond, Keogh tested student's observation skills with a practice walk on the high school campus.

"At first they didn't see anything, and quickly realized that it was because of the level of conversation taking place," Keogh said. "Sitting quietly for an observation period, and then walking silently back into school, they were amazed at the number of sights, sounds and smells they had never noticed before."

Developing observation skills helped the students prepare for a day exploring the woods and waters at Morton Arboretum at Lisle. They sat under the trees listening to birds. They saw coyotes,

Staff and volunteers at Morton Arboretum helped Montini High School students hone their observation skills.

(Photos courtesy Rita Keogh, Montini High School.)

white-tailed deer, a mole and snakes. They sorted through nets of pond water and sifted through decomposing logs.

While students live within 10 miles of the arboretum, Keogh found that the arboretum was an unknown resource to most. But at the end of the field trip, student comments centered on making a return visit, and encouraging Keogh to repeat the program next year.

Throughout the project, students kept journals and wrote essays and poems.

"This was some of the best work I've ever read as the students were so enthusiastic and really caught the spirit of the field trip in their work."

So successful was the day that Keogh was asked by the principal: "What are you going to do next?"

Inspired by the writings of Henry David Thoreau, Montini High School students spent a portion of their field trip recording their impressions in a journal.

Garden Pathways

Gardeners—and tomato-lovers—eagerly await the first home-grown tomato of the summer. Fresh from the vine, the warm fruit tastes of sunshine and fresh air.

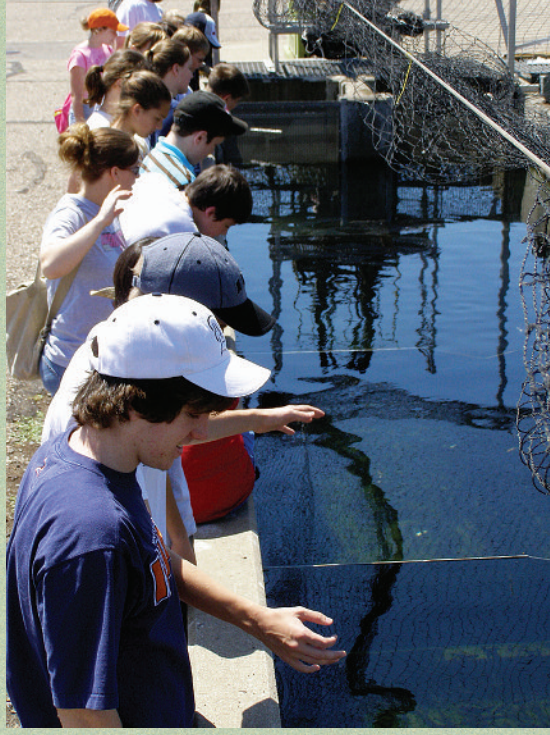
Growing organic and inorganic tomatoes, and studying the impacts of the use of herbicides and pesticides, helped keep a group of 40 east-central Illinois, at-risk high school youth interested in school. Through the Pathways Program, an alternative high school program for truant, homeless, culturally isolated, neglected or chemically dependent teens, students visited an organic farm to learn how to work the soil, plant seeds and seedlings and monitor plant growth.

In the process, they developed a relationship with a Master Gardener and gained a positive role model. They gained self esteem and written and oral communication skills by sharing their results with the community through posters and an informational booth. They experienced farm life and acquired new social skills by eating at a restaurant. They met personal goals and took steps toward completing their high school education.

"The funding we received through the Biodiversity Field Trip Grant program allowed students to develop an understanding of how chemicals impact our environment," explained Althea Pendergast, Pathways coordinator for the Regional Office of Education No. 11 located in Mattoon. "In a blind taste test students really caught on to taste differences between organic and inorganic tomatoes, but the lasting message they got was the profound impact herbicides and pesticides have on our environment, and the related human health issues."

At the end of the year, tomato plants went home with students. Plants students would need to nurture that would, with time, yield experiences, and fresh tomatoes, to share with family and friends.

(Photos by Kathy Andrews.)



Summer School Science

Participants in the Jacksonville Summer School Science program met with professionals at Dickson Mounds (above) and Jake Wolf Memorial Fish Hatchery (right).

It wasn't your ordinary summer vacation. For three weeks, 20 Jacksonville students in 5th through 9th grade explored the natural and cultural history of the lower Illinois River valley from Havana to Grafton.

They met a fisheries biologist, wildlife biologist, flintknapper, geologist, archaeologist, land manager and park naturalist. They toured a fish hatchery, state forest, state and national wildlife refuges, lock and dam, an archaeological excavation and area museums. They canoed a wetland, planted a prairie, identified plants and animals, and learned about jumping carp, siltation and commercial uses of the river. In laboratory sessions they analyzed water samples, developed global positioning system mapping skills and manipulated digital photographs.

Development of the program was a team effort between Jim Hergert, science teacher, and Jim Chelsvig, social studies teacher.

"Receiving an Illinois Biodiversity Field Trip Grant allowed our class to visit a variety of locations relevant to a full understanding of the Illinois River," Hergert explained. "Knowledge growth requires students to understand broad concepts that link several disciplines. Actually visiting sites and talking to professionals increased the relevance and meaning of key issues, critical for helping understand the river and fostering development of an environmental ethic."

Being in nature has its ups and downs, and the participants experienced nettles and poison ivy, biking up hills and getting rocks in their shoes while wading in a creek. As Haley Chelsvig said: "The only bad thing that happened to me during the class was getting stung by a bee—but things like that can happen when you're out in nature."

It makes no difference if it is an oasis in the city, a greenhouse in the classroom or a trip to the river, the Illinois Biodiversity Field Trip Grant program helps Illinois teachers and students experience first-hand Henry David Thoreau's observation that nature provides the essential facts of life.

Hands-on activities, such as planting prairie forbs or exploring a wetland, are central to the projects selected for funding.

(Photos by Kathy Andrews.)

The Illinois Biodiversity Field Trip Grant program is open to Illinois teachers, including home-school teachers, for the purpose of studying some aspect of Illinois' biodiversity. Among the items eligible for funding are transportation, substitute teachers and guest speakers. Applications must be postmarked by January 31 each year. A copy of the application form is available at www.dnr.state.il.us/lands/education/CLASSRM/grants.htm. Additional information may be obtained by e-mailing dnr.teachkids@illinois.gov or calling (217) 524-4126.

Major benefactors supporting the program are The Daniel F. And Ada L. Rice Foundation and Independence Tube Corporation. The Illinois Conservation Foundation administers program funding.